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ABSTRACT

This report describes the system of compensatory services offered to students in Seattle, Washington during the 1978-79 school year. The analysis focuses on programs which have evolved according to district identified student needs and program goals rather than according to funding sources. Reflecting that emphasis, the report begins with a description of student needs based on an assessment survey administered to school district principals and an assessment with objective data such as student test scores, income levels, and language backgrounds. In the second section, a summary of compensatory programs and their funding sources are found. Various program intervention strategies and program organizations are also outlined. The final section presents an evaluation of Seattle's network of compensatory programs and concentrates on the basic skills category which serves the greatest number of students. A summary with recommendations for improving programs concludes the report. (Author/APM)

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AN ANALYSIS OF THE SEATTLE COMPENSATORY EDUCATION PROGRAM 1978-1979: NEEDS, EFFECTIVENESS AND PROGRAM IMPROVEMENT

REPORT NO. 80-6
MAY 1980

LEE WOOD

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AN ANALYSIS OF THE SEATTLE COMPENSATORY EDUCATION PROGRAM 1978-1979: NEEDS, EFFECTIVENESS AND PROGRAM IMPROVEMENT

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ANALYSIS OF THE SEATTLE COMPENSATORY EDUCATION PROGRAM 1978-1979: NEEDS, EFFECTIVENESS, AND PROGRAM IMPROVEMENT

INTRODUCTION

Compensatory programs are defined as programs which provide supplementary services to students enrolled in the regular district program who have identified needs which form a barrier to their academic achievement. To clarify the definition: (1) Compensatory services are those provided to supplement the regular district program. Services which replace the regular program such as the Follow Through program are not considered to be compensatory even though student needs addressed by these services may be the same as those addressed by compensatory programs. (2) Further, the identified needs include any student traits perceived to be a barrier to potential academic achievement such as limited English fluency or social and emotional problems and are not limited to services to directly increase basic skills in reading and mathematics.

Over the years, the Seattle Public Schools have developed and refined a number of compensatory programs to supplement the regular instruction of students with special needs. Before 1966, these consisted primarily of locally developed and supported efforts such as programs for tutoring children in basic skills or English as a second language. Beginning in 1966 with the Elementary and Secondary Education Act (ESEA), approximately $1 million was granted to the District to increase the academic achievement of school children living in economically disadvantaged areas. Since that time, the federal and state governments have enacted other legislation which provide funds for special, supplementary services to students with particular needs, and the point of origin of programs moved generally from within the district to the funding agencies outside. Now state and federal grant monies fund most of the compensatory services in Seattle Public Schools.

This report describes the system of compensatory services which has evolved according to district-identified student needs and program goals rather than according to funding sources. Reflecting this emphasis, the report begins with a description of student needs for supplementary programs and then presents a summary of program dollars and services, both organized according to student needs and program goals. The final section presents an evaluation of the districtwide network of compensatory programs, concentrating on the basic skills category which is the category given the highest priority districtwide and the one which serves the greatest number of students. The needs assessment, evaluation, and budget data describe compensatory services for 1978-1979, the last complete school year.

THE NEED FOR COMPENSATORY PROGRAMS

Since categorical funds began supporting most of the compensatory services in Seattle Public Schools, published needs assessments for compensatory programs in Seattle have come to be dictated by categorical grant requirements and District legal commitments. For the Seattle School District which is intent upon comprehensive, high quality service for students, an appropriate approach to developing compensatory programs would be independent from grant reporting requirements. Toward this purpose, the Evaluation Office developed and distributed a survey to building principals in the spring of 1979. The results of the survey relevant to this report are summarized below. Subsequently, a needs assessment based upon objective, computerized data is presented and the two assessment results compared.

NEEDS BASED ON THE PRINCIPALS' SURVEY

In March 1979, an eight item "Needs Assessment Survey" was sent to all Seattle Public School principals. A copy of the survey is provided in Appendix A. The purposes of this survey were to obtain:

- Building principals' perceptions of student needs,
- A priority ranking by the principals of their building program needs,
- A comprehensive list of 1978-1979 programs or activities which address student needs, and
- An estimate of student needs not currently met by present compensatory programs.

The survey was returned by 60 of 83 elementary schools, 12 of 16 junior high and middle schools, and 10 of 12 high schools. The overall return rate of 74 percent is high for surveys.

Service Priorities

From the returned surveys, a prioritized list of overall district needs was derived by summing the number of principals' first and second priorities placed on needs for services and then ranking the traits accordingly. Inclusion of gifted programs as compensatory is controversial. The data for gifted program needs are being included here because they formed an integral part of the principals' rankings. The resulting list indicates that principals placed priorities on services for students in the following order:

1. Students reading below grade level
2. Students having mathematics skills below grade level
3. Students demonstrating severe behavior problems

4. Students demonstrating exceptional academic performance

5. Students whose primary language is not English

6. Students with frequent school transfer

Principals ranked these services in the same order of importance regardless of their buildings' grade levels. However, the extent of perceived need varied somewhat between buildings with different grade configurations. Table 1 shows the number of first and second priorities supplied by principals of schools at each level and also for the district overall.

Basic skills services for students having reading and math skills below grade level were deemed most important by principals at all levels. Thus the principals' priorities were consonant with the "1979-80 District Goals and Objectives", written by the Seattle School Board, that placed the highest priority on student achievement in basic courses. Further, principals at all levels gave third priority to services for students with severe behavior problems. Differences between priorities occurred after the third priority. No junior high/middle school principals gave first or second priority rankings to services for bilingual students or to services for students who move frequently. Likewise, no high school principals placed a first or second priority on services for gifted students or on services for students who move frequently.

In addition to ranking traits listed on the Principals' survey, two high school principals wrote in "Counselling" as a first priority service in their building. They gave no estimates, however, of the numbers of students in their buildings with the traits that required counselling services.

TABLE 1

PRINCIPALS' RANKING OF STUDENT NEEDS
AND ESTIMATES OF EXTENT OF NEED

	Elementary Schools		Junior High/ Middle Schools		High Schools		Districtwide Schools	
Needs Area	Priority 1 & 2	Projected Students	Priority 1 & 2	Projected Students	Priority 1 & 2	Projected Students	Priority 1 & 2	Projected Students
Reading	46	6427	17	3080	6	3744	63	13251
Math	38	5836	10	3087	5	4039	53	12962
Behavior	20	1121	3	963	3	388	26	2472
Gifted	12	3795	1	1748		1766	13	7309
Bilingual	9	1657		559	3	853	12	3069
Moving	5	5396		2691		1860	5	9947
Counselling					2		2	

Estimated Numbers of Students

Table 1 also presents a projection districtwide of the numbers of students within each grade span grouping who had the traits listed on the questionnaire. Responding principals' estimates of the numbers of students with the traits in their own buildings formed the basis for the projections thus: The estimates were summed for all elementary buildings, junior high/middle schools, and high schools separately. An average per building estimate was found for the responding buildings within each grouping and a projection for that group of buildings calculated by multiplying the average per building estimate times the number of buildings in that group.

Numbers of students with each need and the principals' priority ranking on services for those needs did not necessarily coincide. The projections indicate that principals perceived more students districtwide to be in need of reading and mathematics remediation than any other service. In addition, they perceived these needs as having the highest priority for service. However, fewer students were perceived as having severe behavior problems than any of the other listed needs, and this trait was given a first or second priority for service by twenty-six principals, the third highest overall priority at each of the three grade span levels. Similarly, the principals estimated that nearly ten thousand students change schools districtwide during the year, yet services for transferring students were not given high priority by any secondary principals. Five elementary principals, however, did place a high priority on services for these students. These five principals had over forty-seven percent of their students move during the year, a much higher percentage than the usual districtwide transfer rate of sixteen percent. Thus while mobility services were given a low priority districtwide, in some buildings at the elementary level, mobility rates were high and services to mobile students deemed important.

Preferred Programs

The Principals' Survey also asked principals to recommend types of programs which would best serve students with each listed need. Their responses are listed below by needs category.

For low achievers in reading and math, principals at all grade levels suggested highly trained reading or math teachers working with students on a one-on-one basis or in small classes. These prescribed services are similar to those offered by Title I and Title VII's Basic Skills Impact Model.

Principals suggested services which varied with the grade level for students with severe behavior problems. For elementary students, the most frequent suggestions included counselling services, especially on-site counselling. Junior high/middle school and high school principals preferred either self-contained programs, such as Special Education, re-entry, or work/study programs, or counselling-screening-referral programs.

The elementary principals indicated they needed Horizon and general enrichment programs to serve students who demonstrated exceptional academic ability. Junior high/middle school principals voiced more need for specific "honor subjects" such as language arts, social studies, and math. They were divided on instructional method with some saying they wanted more and some less

individualization. High school principals were, for the most part, satisfied with available services to their gifted students: advanced placement classes in major academic subjects.

Principals at all grade levels preferred English as a Second Language (ESL) classes for their students whose primary language is not English. Some Elementary principals also suggested serving bilingual students in bilingual programs (i.e., home language instruction). Three elementary principals suggested a remedial basic skills program for these students.

For students who change schools during the year, principals again recommended different services at different grade levels. The majority of elementary principals prescribed a counselling program like the Student Services Mobile Student Project. Junior high/middle school principals, on the other hand, preferred to help new students adjust through a regular school program which includes entrance interviews, a buddy system, and an orientation period. High school principals perceived the student mobility problems to be associated with academic program differences between buildings. Consistency across the district in credit earnings and course offerings would help students who move, they suggested. Another suggested option was a districtwide continuous progress program in which students worked at their own level in basic academic subjects.

Summary

Principals at all school grade levels perceived basic skills reading and math remediation as having the highest priorities. Nearly twenty-five percent of the district's student population was estimated by the principals to be in need of such remediation. The next priority was placed on counselling services for students with severe behavior problems, although relatively few students were reported to have problems in this category.

NEEDS BASED UPON OBJECTIVE DATA

Funding source requirements have influenced to some extent the types of data which are compiled centrally and available districtwide. These data are limited to standardized test scores, free and reduced-price lunch eligibility, bilingual language, fluency, and service codes, Special Education, handicap, and service codes, and services provided by the categorical programs. The available data are summarized in the following paragraphs.

Test Scores

Standardized Achievement Tests. The District regularly tests students with standardized tests to determine students' achievement levels. According to arbitrary past practice, need for basic skills service is indicated if a student scores in the lower three stanines (at or below the twenty-third percentile) on the basic skills subtests of the achievement battery. Such a score defines the student as a low achiever. In the fall of 1978, the District administered the Metropolitan Achievement Test (MAT) to students in grades two, six, and eight, the California Test of Basic Skills (CTBS) to grade four students, and the Stanford Test of Academic Skills (TASK) to those in grade eleven.

The results of that testing program identified 3,575 of the 17,714 students as low achievers according to the Total Reading Subtest (20.1 percent). In mathematics, the Mathematics Computation subtest (Total Math Subtest in grades two and eleven) identified 3,948 out of 17,665 (22.4 percent) of the students as low achievers. These percentages of low achievers in tested grades were used to project the probable number of low achievers at all grade levels. On this basis, there were an estimated 3,452 low achievers in reading at the elementary level or 17 percent of the elementary population. Likewise, 4,495 students were projected to be low achievers in math or 22 percent of the elementary population. In junior high and middle schools, 2,541 or 23 percent of the students were estimated to be low achievers in reading and 2,727, 24 percent were estimated to be low achievers in math. At the high school level, the projected TASK results showed that 2,841 out of 13,323 or 24 percent were low achievers in reading and 2,311 or 17 percent were low achievers in math.

Table 2 shows a comparison of the number and percentage of low achievers in each tested grade. In general, grade two had fewer low achievers than other grade levels.*

Minimum Competencies Tests are also used to identify district students in need of remedial service. These are given in the spring or fall of each year to students in grades 3, 6, and 9. The building programs are expected to serve students identified as having less than the minimum acceptable level of competency in reading, math, and English language. Scores from the spring of 1978 are not, however, accessible on the district computer at this time and so are not reported. Nevertheless, each individual student identified by that testing as needing minimum competency service had that need indicated on his individual record and was to be served either by a compensatory program or in the district's regular program during the 1978-1979 school year.

Poverty and Its Relationship to Low Achievement

While family poverty is a student trait not directly alterable by the educational institution, poverty has implications for student achievement which warrant including it in a list of needs like this one. In the District, eligibility for free or reduced-price lunches is used to indicate income level. For the current 1979-80 school year, children from a family of four with a gross yearly income of under $8940 would be eligible to receive free lunches. During 1978-1979, 30.7 percent of the public school students in Seattle were eligible to receive free or reduced-price lunches. Of those tested, 35 percent of the eligible students scored in the lower three stanines in reading while only 13 percent of those not eligible for free or reduced-price lunch scored in the lower three stanines. Achievement patterns in mathematics are similar.

* This pattern changed somewhat in the fall of 1979 with a change to the California Achievement Test (CAT). The new test measured second grade achievement to be at about the same level as that in other grades.

Furthermore, students eligible to receive free or reduced-price lunches make significantly lower gains than students not eligible. In reading, the mean achievement gain from fall to spring for low achievers was 7.8 percentiles. Those eligible for free or reduced-price lunch gained an average of 6.7 percentiles while those not eligible gained an average of 9.6 percentiles. Math gains vary similarly. Low achievers on free or reduced-price lunch gained 9.0 percentiles, those not on free lunch gained 13.6 percentiles. The mean gain for all low achievers in math was 11.1 percentiles. Income level, then, is not only related to initial achievement, it is also related to student achievement gains during the school year. The implication is that low achievers from poor families have even greater deficits than students whose achievement level is similar but whose family is not poor.

TABLE 2

LOW ACHIEVERS ACCORDING TO THE FALL 1978
METROPOLITAN ACHIEVEMENT TEST

LOW ACHIEVERS	TOTAL READING		MATH COMPUTATION	
TESTED	Students	Percent	Students	Percent
Grade				
2	572	16%	551	15%
4	658	18%	965	26%
6	672	19%	992	28%
8	801	25%	802	25%
11	872	24%	638	18%
Total Tested	3575	20%	3948	22%
PROJECTED				
Elementary Schools	3452	17%	4495	22%
Junior High/ Middle Schools	2541	23%	2727	24%
High Schools	2841	24%	2311	17%
Total District	8834	20%	9533	22%

Social/Emotional Service Needs

The Office of Student Services keeps on-going records of the requests they receive from buildings for the services of counselors, psychologists, and social workers. Detailed reports are available from that office but there are no computerized records of these requests. Briefly, 4,590 requests for service were received during the 1979-1979 school year. These included consultation and some parent group presentations in addition to requests for direct services to students.

Bilingual Service Needs

Students whose home language is not English must be assessed each year to determine their fluency category. The District is required to offer bilingual services to those in category A (who speak no English) and category B (who speak English less well than another language). During the 1978-1979 school year, 1,754 students were identified to be in those two categories. Details regarding achievement level, languages spoken, and services rendered those students are published elsewhere* and so will not be recounted here.

A COMPARISON BETWEEN TWO NEEDS ASSESSMENT APPROACHES: A SUMMARY

The two presented needs assessment methods can be compared both in number of students reported and in the quality of information derived.

While principals estimate higher numbers of low achievers in reading and in math than do test scores, both assessment methods indicate that the greatest need for supplementary service is in the area of basic skills remediation.

In the areas of bilingual student service needs and social/emotional service needs, principals have generally more students perceived to have the needs than are indicated by services requested or provided by the district offices responsible for those services.

A comparison between needs assessments is more difficult in the other areas studied via the principals' survey. The problem is that there are no comparison data. For instance, there was no record kept of the numbers of mobile students needing support. So in the mobility area, no comparison exists. And while the Student Services Office keeps detailed reports of requests for services received during each school year, the available report for 1978-1979 does not break

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* 1978-1979 Bilingual Student needs and service information is reported in Seattle Public School Report no. 79-19 from the Department of Planning, Research, and Evaluation: "An Investigation of the Effects of Background Characteristics and Special Language Service on the Reading Achievement and English Fluency of Bilingual Students". This report was written by Tom Matthews and is available upon request from the Office of Instructional Program Evaluation, 587-5160.

requests down into categories. Therefore, the total number includes requests for non-compensatory services and is not comparable to the 1350 students reported by principals as having severe behavioral problems. Finally, economic disadvantage was not included on the principals' survey and again no numerical comparison is possible.

There are advantages and disadvantages to both assessment methods. Centrally computed objective data have some advantage over principals' surveys in that standard criteria can be used across the District to determine need. An additional advantage is that all students can be counted via the computer, not just those whose principals return the surveys. On the other hand, principals' surveys have other advantages. One is the unique ability of principals to prioritize need within the individual buildings. Another is the principals' ability to determine on an individual basis the most appropriate service for students who are not doing well in school. Principals can make the alternative service judgments while computers cannot.

In general, both needs assessment procedures have merit and it would be most useful for program development and targeting if the District were to continue a needs assessment process which incorporated a combination of standardized data with principals' observations and priorities.

In summary, both assessment methods indicate the greatest need districtwide is for remedial basic skills services.

PROGRAMS

Fifteen compensatory programs served students in the Seattle School District during the 1978-1979 school year. This section of the report describes the fifteen program compensatory education system in terms of funding, intervention strategies, and organization with the programs separated into categories according to program goals and student needs served. Services addressing student needs through compensatory programs can be conveniently divided into three categories: basic skills remediation, social/emotional, and bilingual.

Basic Skills Programs

Programs in this category share the primary goal of directly increasing academic achievement in reading and mathematics by providing supplemental instruction to identified low achievers in the areas of reading, math, and language arts. Students are selected because their skills in basic academic areas are behind grade level expectations as determined by test scores or teacher judgement.

Social/Emotional Programs

Psychological and counselling services are grouped together in one category of Compensatory Programs. A long range objective in this category, as in all of compensatory education, is to increase academic achievement. The short term goal for the programs and services is helping the students deal with social and emotional problems that can preclude them from achieving at potential.

Bilingual/Bicultural Programs

This category includes several types of services to students from minority or foreign backgrounds. Different programs provide English language instruction to students with other home languages, academic subjects in native languages, and counselling and basic skills services to students from specific ethnic groups.

Seattle's 1978-1979 Compensatory Programs are listed on Table 3 under each of the three general categories. The list indicates a great diversity of effort to serve the special needs of Seattle's school children. Budget figures for each program are also given on Table 3 listed by general funding source, local, state or federal. The summaries of budgeted amounts show total program funds and total funds for each category divided by funding source.

COMPENSATORY SERVICES BUDGET

The Seattle Public Schools budgeted a total of $8.75 million for compensatory programs in 1978-1979. This figure includes all federal and state grant monies and district funds which were allocated to support compensatory services and were administered by the District. Dollar amounts and funding sources for this budget were taken from grant proposals kept by the Office of Grants Management and verified by the Budget Office records. Estimates of district funds budgeted for bilingual programs were supplied by the Bilingual Program Office and verified by the Budget Office. The figures reflect budgets as of May 31, 1978.

TABLE 3

1978-79 COMPENSATORY PROGRAM BUDGET

(IN DOLLARS)

Program Title	District	State	Federal	Total
Basic Skills				
ESEA Title I Program			3,219,797	3,219,797
ESAA Title VII Basic Skills Impact Model			916,384	916,384
ESAA Title VII Individualized Achievement Motivation Pilot			137,064	137,064
ESAA Title VII Minimum Competencies Program*			955,339	955,339
U.R.R.D. School/Community Liaison Services**	137,376	525,000	120,000	782,376
Basic Skills Total	137,376	525,000	5,348,584	6,010,960
Social/Emotional Support				
Child Development Centers	158,927		370,829	529,756
Mobile Students Project	2,380		112,950	115,330
Social/Emotional Support Total	161,307		483,779	645,086
Bilingual/Bicultural				
ESAA Title VII Bilingual Services Assistants			107,141	107,141
District Bilingual/ESL	1,182,000			1,182,000
ESEA Title VII Basic Bilingual Services			262,928	262,928
ESAA Title VII Special Projects Bilingual			177,238	177,238
URRD Indian Heritage Pupil Services	28,452	72,450		100,902
URRD Proyecto Saber	32,000	78,984		110,984
URRD Franklin High Bilingual	2,185	43,050		45,235
URRD Cleveland/Mercer Bilingual	25,671	84,000		109,671
Bilirgual Total	1,270,308	278,484	547,307	2,096,099
GRAND TOTALS	1,568,991	803,484	6,379,670	8,752,145

* The district funded portion of the Minimum Competencies Program comes from baseline funding sources and is not included.

** School/Community Liaison Services is included as a basic skills program on the basis of proposal objectives and its tutorial activities. However, as it exists, the program has a primary orientation toward human relations activities and its proposal will be changed to reflect this orientation.

Figure 1 graphically represents the budget total for each category as a proportion of total district compensatory education expenditures. According to total financial support, basic skills programs were most emphasized in the District and received 69 percent of all the compensatory education funds. Bilingual programs received 24 percent of the compensatory education budget. Social/emotional support programs received seven percent of the compensatory education funds.

Funding for these programs was provided from three major sources. Federal legislation provided $6,379,670 to the District for compensatory programs during the 1978-1979 school year. State agencies granted the District $803,484; and $1,568,991 was budgeted for compensatory programs and services from district funds. Figure 2 shows the division of compensatory funds according to funding sources with each major sector divided to represent proportions of support for each program category under the major funding sources.

Federal Funds

The Seattle School District receives funding from several different federal funding sources. The largest source of federal funds for compensatory programs was Title I of the Elementary and Secondary Education Act (ESEA). Title I funds were directed toward basic skills classes for low achievers in schools with higher than average concentrations of poverty. The total ESEA Title I grant amounted to $3,219,797 during the 1978-1979 school year. Title VII of the Emergency School Aid Act (ESAA) awarded $6,148,270 to the Seattle Public School District for 1978-1979 to assist in desegregating the Seattle Public Schools. Of this, $2,186,025 was allocated for compensatory programs.

State Funds

State support to local compensatory programs came primarily through Urban, Rural, Racial Disadvantaged (URRD) grants until the 1979-1980 school year.* The State Superintendent of Public Instruction described the purpose of URRD funds as follows:

> "To provide compensatory educational services to children who are not succeeding in school because of disadvantaged, minority, or poverty backgrounds -- in order to raise their level of educational attainment to the level appropriate for children of their age."

URRD dollars granted to the Seattle Public School District for 1978-1979 which supported compensatory programs included in this report amounted to $803,484 out of $1,845,813 total URRD funds.

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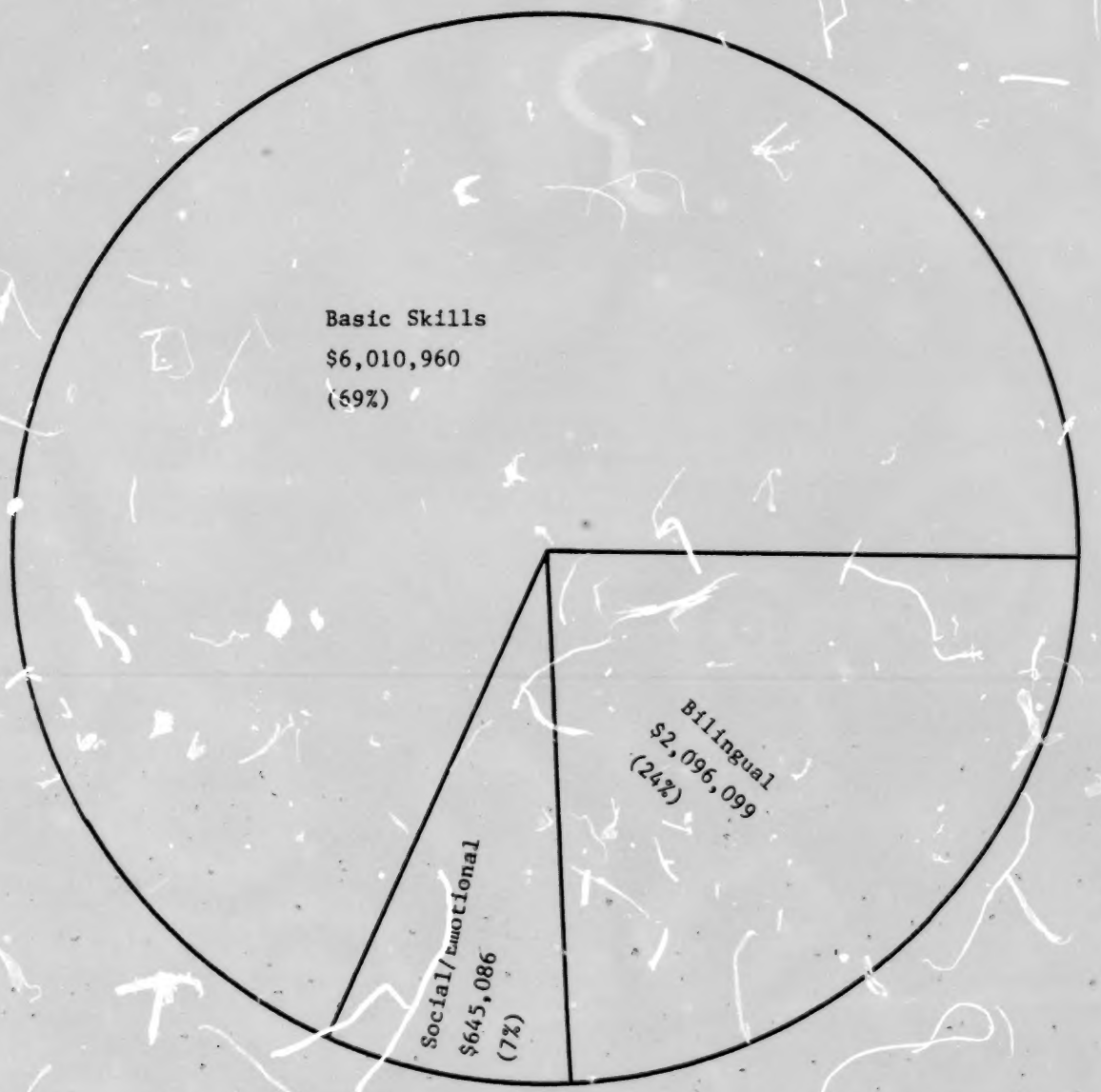
* Beginning with the 1979-1980 school year, the state-funded compensatory program picture changed. The School/Community Liaison Services operation now has a budget less than half of that listed on Table 2 and is no longer a basic skills program but has shifted its main focus to drop-out prevention and increased attendance. New state funds (State Remediation Assistance) are now earmarked to supplement the Title I program. Further, the 1978-1979 URRD bilingual programs are no longer URRD-funded but receive support through the State Bilingual Program.

Figure 1

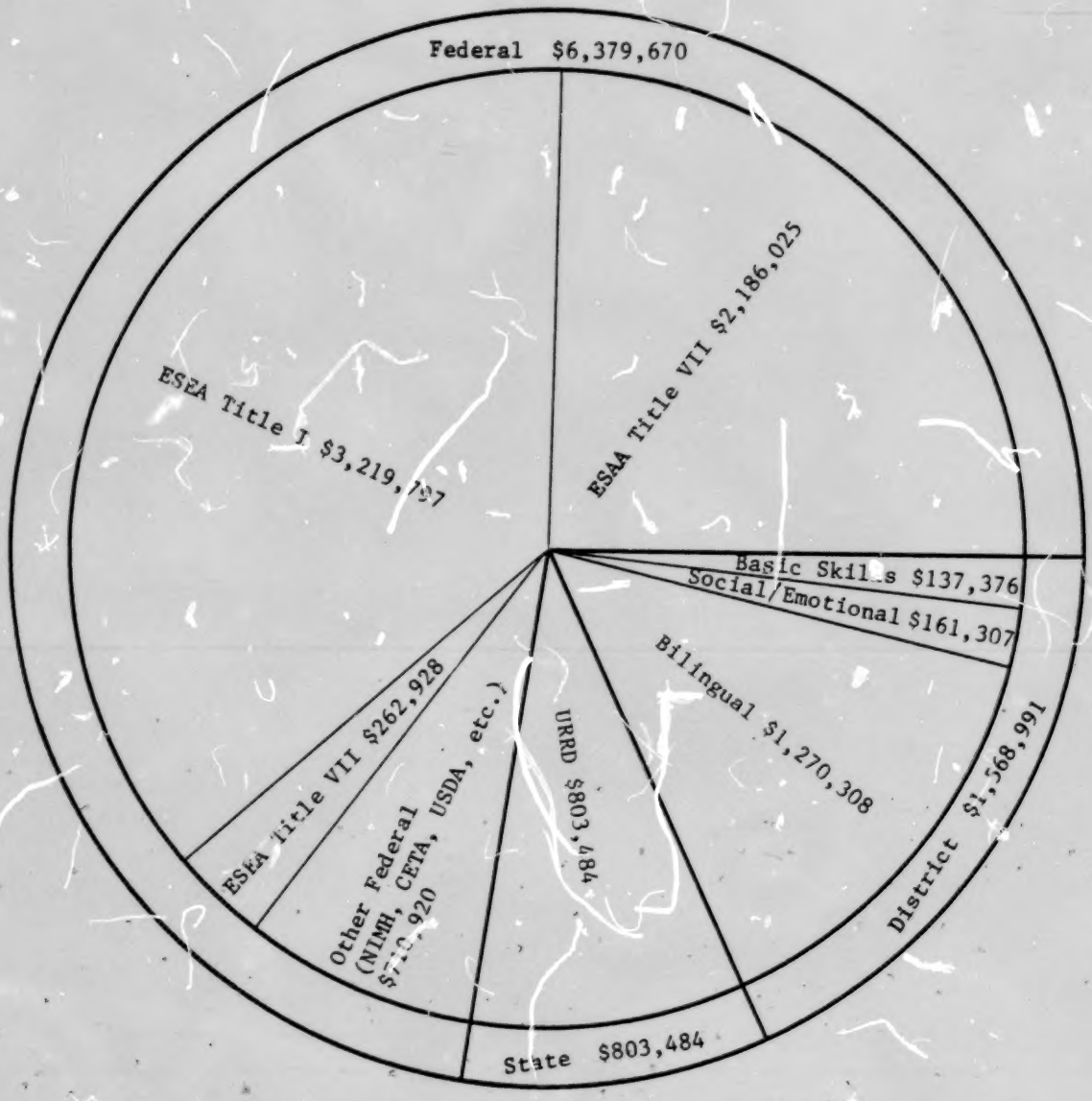
COMPENSATORY EDUCATION BUDGETS
BY PROGRAM CATEGORY
FOR 1978-79



Total = $8,752,145

Figure 2

DIVISION OF THE COMPENSATORY EDUCATION BUDGET
BY SPECIFIC FUNDING SOURCE
FOR 1978-79



Total = $8,752,145

District Funds

Some district funds are allocated directly to compensatory programs in each of the three program categories In 1978-1979 the operation of bilingual programs required the greatest amount of local financial support. Whereas the district's financial support for the other program categories was $278,683, its support of bilingual programs was over four times that amount or $1,270,308.

The special commitment to bilingual programs began in 1974 when the Office for Civil Rights found that the Seattle Public School District did not satisfactorily provide adequate educational opportunity to students from non-English language backgrounds as required by the Lau vs. Nichols Supreme Court Decision. In order to keep its other federal funds, the District agreed with HEW to increase its special programs for linguistically and culturally different students.

PROGRAM INTERVENTION STRATEGIES

The compensatory programs which operated during 1978-1979 in Seattle each utilized some kind of assessment and screening process for selection of students to be served. In addition, the service programs used four primary strategies for increasing the academic achievement of target students: supplementary classrooms, individual tutoring, individual counselling, and home/school liaison services. In some programs the strategy is constrained by the funding source, and in others it was determined by the needs of the target population. Some programs used only one strategy. Others employed all four. Following is a description of the strategies with a list of programs in the Seattle School District that operated under each during 1978-1979.

Supplementary Classroom or Pullout Strategy

In programs which use this approach, elementary students having a particular need are served outside their regular classroom in a special supplementary class for a specified time each week. Generally, scheduling for these "pullout" classrooms is arranged so that students do not miss their regular reading or mathematics instruction. Often the teacher used in the supplementary classroom is a specialist in a particular academic area and is able to provide individual help to the student. Usually there are diagnostic tests connected with placement and service in the supplementary classroom. Once the student meets specific achievement criteria s/he is graduated from the program.

At the secondary level, students' supplementary classroom instruction generally operates for one standard class period. The student may receive elective credit for the supplementary work as opposed to required credit for basic courses necessary for graduation, or s/he may be served in a classroom having a lowered student-teacher ratio and receive required credit.

During the 1978-1979 school year, the following compensatory education programs in the Seattle School District used this supplementary strategy:

ESAA Title VII Basic Skills Impact Model
ESAA Title VII Minimum Competencies Program
URRD Cleveland/Mercer Bilingual

URRD District Bilingual/ESL
URRD Franklin High School Bilingual
ESEA Title I
ESAA Title VII Special Projects Bilingual
ESEA Title VII Basic Bilingual Services
ESAA Title VII Individualized Achievement Motivation Pilot

Tutoring Strategy

Students with bilingual or basic skills instruction needs may also be served by tutors. The tutoring usually occurs during school hours and is usually supplementary to the regular classroom work. The compensatory programs which operated tutorial sessions are:

URRD Cleveland/Mercer Bilingual
URRD District Bilingual/ESL
ESEA Title VII Basic Bilingual Services
URRD Franklin High School Bilingual
URRD Indian Heritage Pupil Services
URRD Proyecto Saber
URRD School/Community Liaison Services
URRD ESAA Title VII Basic Skills Impact Model

Counselling Strategy

Counselling is provided to students in many programs to help solve social or emotional adjustment problems. Counselling may be a one time service or may continue over several years depending upon student needs and program strategy. The following programs operated counselling services:

NIMH Child Development Centers
URRD Indian Heritage Pupil Services
URRD Mobile Students Services
URRD Proyecto Saber
URRD School/Community Liaison Services
ESAA Title VII Bilingual Student Services Assistants

Home/School Liaison Services

Home/School liaison services attempt to increase parents' awareness and support of school activities and in some programs to teach parents how to work with their children. Home visits are often made though the liaison may also be conducted over the phone or in the classroom. Five programs used this strategy for increasing achievement:

ESAA Title VII Basic Skills Impact Model
NIMH Child Development Centers
ESEA Title I
URRD School/Community Liaison Services
ESAA Title VII Bilingual Student Services Assistants

PROGRAM ADMINISTRATION

Compensatory programs exist as a service in most schools in the District. As with other activities in the buildings, the building principal is responsible for managing the programs at each site. Districtwide program management consists of various coordinators who design programs, seek funding, allocate funds for programs, and monitor programs to assure compliance with any funding source requirements. Various programs are coordinated centrally as described in the following pages and as illustrated in the organization chart, Figure 3.

Services for basic skills reading and math needs are provided by seven programs, two of which are listed under the bilingual category of compensatory education as a consequence of their student eligiblity criteria. These seven programs were administered during 1978-1979 through three district offices: Grants and Compensatory Education, Desegregation Services, and Area Administration.

Services for students with limited English fluency are administered primarily by the Bilingual Programs Office through three program managers. The Franklin and Cleveland/Mercer bilingual programs, however, are administered by Area Administration. The Bilingual Student Services program is administered by the Student Services Office; and finally, the ESAA Title VII Coordinator has some grant reporting responsibility for the Title VII programs but is not an administrator of the instructional part of the program. Programs which serve bicultural students' social and emotional needs are all administered by the Student Services Office. Those services provided specifically to bilingual students do coordinate with the Bilingual Programs Office, however.

ORGANIZATION CHART FOR COMPENSATORY PROGRAMS AND SERVICES FOR 1978-1979

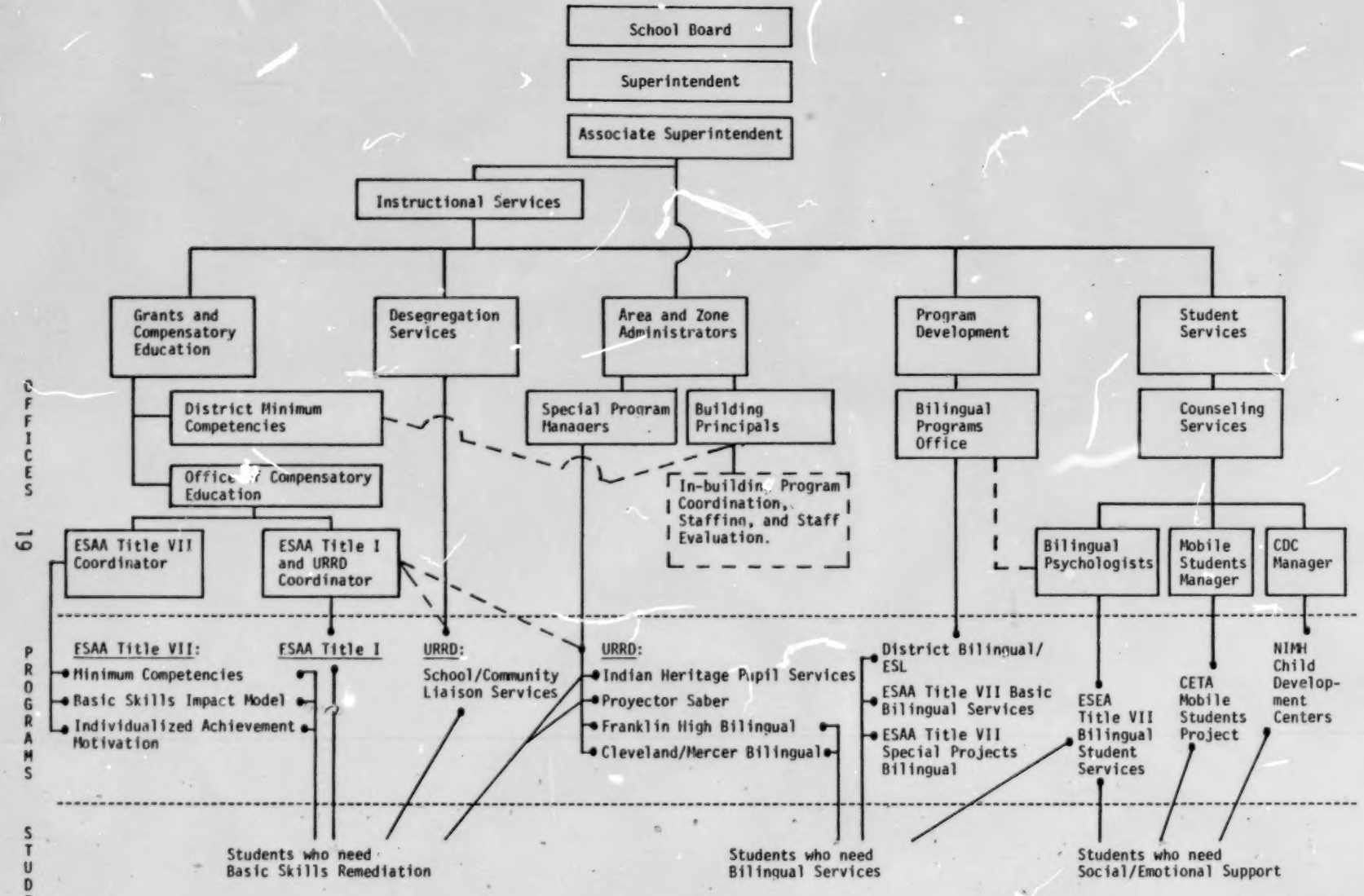


FIGURE 3

AN EVALUATION OF SEATTLE'S

COMPENSATORY EDUCATION SERVICES

This evaluation of the system of compensatory services which has developed in the Seattle Public Schools addresses three aspects of the system: (1) the fit between student needs and services, (2) the organization of the system for serving student needs, and (3) the comparative success of programs which aim directly to improve students' basic skills. The chapter includes a series of recommendations to improve existing services based on local and nationally published data.

STUDENT NEEDS AND SERVICES

The match between student needs and services for those needs can be assessed in two ways, each corresponding to one of the two needs assessment approaches: the principals' survey and centrally collected, objective student data.

Principals' Surveys

In addition to the numbers of students with certain traits and a ranking of the importance of services for those traits, the principals' survey asked for an estimate of the numbers of students in each building served and unserved for each trait. Table 4 presents the results of projecting the principals' responses districtwide. The traits are listed according to overall priorities placed by principals on service needs, as they are in the needs assessment chapter.

Principals counted any services offered within their buildings which were specifically designed to address problems associated with the given traits. That is, the services were not limited to compensatory programs nor were they limited to supplementary services but could include services which replace the regular program such as Special Education classes.

In most of the needs areas, some service was provided to over half the students needing service. Three categories of high priority need, however, appear to be underserved and should be considered prime target areas for additional service according to the principals' perceptions. These are (1) reading and math remediation at the junior high/middle school level, (2) behavior problems in elementary schools, and (3) behavior problems in junior high/middle schools.

Students who change schools frequently were provided little service at all grade levels, but this area was given the lowest overall priority by principals.

Objective Student Data

The District keeps central records of services provided by most categorical programs for federal and state reporting requirements. For the 1978-1979 school year, such data were compiled for all the Title I, Title VII, URRD, and bilingual programs plus CDC. No central lists are kept for services provided by district baseline funds, however, even though they may be otherwise compensatory in nature. Therefore, a comprehensive assessment of the match between needs and

TABLE 4

DISTRICTWIDE PROJECTIONS OF STUDENT NEEDS AND SERVICES
BASED UPON THE 1978-79 PRINCIPALS
NEEDS ASSESSMENT SURVEY

Needs Area		Elementary	Junior High Middle School	High School	Districtwide
Reading below grade level	total #	6427	3080	3744	13251
	# served	3944	1505	2053	7502
	# unserved	2483	1557	1691	5749
	% unserved	39%	51%	45%	43%
Math Skills below grade level	total #	5836	3087	4039	12962
	# served	3368	1219	2056	6643
	# unserved	2468	1868	1983	6319
	% unserved	42%	61%	49%	49%
Severe Behavior Problems	total #	1121	963	388	2472
	# served	237	211	203	651
	# unserved	884	752	185	1821
	% unserved	79%	78%	48%	74%
Exceptional Academic Ability	total #	3795	1749	1766	7310
	# served	1975	1204	1136	4315
	# unserved	1820	545	630	2995
	% unserved	48%	31%	36%	41%
First Language Not English	total #	1657	559	853	3069
	# served	1050	359	539	1948
	# unserved	607	200	314	1121
	% unserved	37%	36%	37%	37%
Changing Schools Frequently	total #	5396	2691	1860	9947
	# served	678	219	868	1765
	# unserved	4718	2472	992	8182
	% unserved	87%	92%	53%	82%

services which is based upon central data is impossible. The services provided by high schools, for instance, via elective courses, were not counted unless they are funded by state or federal monies. The most complete data exist for elementary level basic skills services, primarily because these are almost all funded by categorical monies, and for bilingual services at all levels, again because of federal reporting requirements.

Test scores identified 7947 elementary school low achievers in reading and math combined. Central service data indicate that 6398 children were served in compensatory basic skills programs. In contrast to elementary figures and in contrast to the principals' survey, central files indicate that only 1206 junior high/middle school low achievers or 23% and 1301 high school students or about 25% of the identified low achievers were served in reading or math by programs keeping computerized service files. While principals of the elementary buildings reported a lower rate of service than do the computer files, principals of the secondary buildings reported a much higher rate.

The only compensatory program which kept central service records and served students with behavior problems is the CDC program, and that program served identified students in only a few of the district's elementary buildings. In addition, services provided by building programs are not centralized thus existing service data are inadequate for providing districtwide information in the social/emotional program category.

Bilingual service data must be kept for federal reporting requirements, and therefore the data are complete on the central files. Briefly, the Bilingual Programs Office identified 1747 students with fluency category A (speaks little or no English) and B (speaks English less well than the home language). Services were refused by 295 and provided to 1452 or about 83 percent. This indicates a higher rate of service than that reported by principals.

Summary of Fit Between Needs and Services

Centrally collected service data provide information appropriate for reporting to funding agencies, a necessary activity. However, to suit the district's need for a comprehensive picture of building-level services, principals' surveys provide an essential overall view of districtwide needs for additional services. Projections made on the basis of those surveys indicate: (1) Over forty percent of the district's low achievers in reading and math receive no special service for this deficit. (2) Many low achieving junior high/middle school students are lacking math and reading remediation. (3) Elementary and junior high/middle schools need increased services for their students with severe behavior problems. (4) Except in the areas mentioned above, the district provides specially designed services to over fifty percent of the students with academic or social/emotional needs. (5) Services for elementary level students who frequently change school are needed in six buildings but were not given a high priority by most principals.

DISTRICT ORGANIZATION FOR SERVICE DELIVERY

The organizational chart of compensatory services (Figure 3) shows a variety of programs administered by six major administrative units. Over the past few years, the District has moved to provide closer coordination between compensatory programs. Increasingly, coordinators of similar programs have come to be organized in the same office. For instance, The Office of Compensatory Programs, the Office of Grants and Compensatory Education, and, most recently, the Office of Compensatory Education have been created to provide more overall direction and coordination in the assessment of District needs, basic skills remediation, development of grant applications to meet those needs, and allocation of resources for a number of programs. The grant applications for ESAA Title VII, ESEA Title I, and State Remediation Assistance funds were developed for 1979-1980 to maximize the number of students who could be served in basic skills programs. In the bilingual and social/emotional support areas, there is a similar consolidation of program administrations in the Bilingual Programs Office and the Office of Student Services, respectively.

A few vestiges remain of an organization based on funding source rather than program goal, however. For example, the ESAA Title VII Special Projects Supervising Teacher coordinates grant activities for some bilingual services as does the Title I and URRD coordinator. Both of these positions report to the Supervisor of Compensatory Education rather than the Bilingual Programs Office. Similarly, the Supervising Teacher for the Title VII-funded portion of the Minimum Competencies Assurance Program reports to the Supervisor of Compensatory Education while the Supervising Teacher for the district portion does not.

Additional conflict exists over the management of categorically-funded teachers. Categorical program managers have the responsibility of ensuring compliance with funding source requirements and therefore exert some central control over categorically-funded teachers. On the other hand, building principals have overall management responsibility for all their staff, including those funded by categorical dollars. This split in management derives from an administrative model developed in the early 70's. The split produces continuing problems, and therefore needs to be addressed.

The remaining diversity in compensatory program administration results in service problems both for students and for program development. (1) Students in need of extra service of some kind are provided with no one central screening and placement service. Likewise, there are no clear guidelines for determining the most appropriate type of service for those students, and some may receive basic skills remediation when they most need a bilingual or social/emotional service. (2) Program development is not centralized except within categories of compensatory programs.

In order to better serve students with needs for supplemental services, (1) it is recommended that the District develop policies and goals for program coordination, management, and placement; and (2) it is recommended that the assessment and screening processes for all special programs be coordinated.

A COMPARATIVE EVALUATION OF COMPENSATORY BASIC SKILLS PROGRAM SUCCESS

Programs to meet the identified needs of District students are available to some extent at each grade level. The extent to which the programs succeed in meeting students needs varies with program category and the means used to measure success. Evaluations of most compensatory programs are conducted yearly for the program administrators and for the programs' funding agencies. They are available upon request from the various responsible offices as detailed on the compensatory program organization chart, Figure 3. To date, the programs within compensatory categories which serve similar populations, however, have rarely been compared to each other primarily because of different proposal objectives and different measurement instruments. Yet for the District to maximize the effectiveness of dollars and effort spent in the compensatory program area, programs with similar goals should be compared.

The focus of this report now centers on compensatory basic skills programs, a focus which corresponds to districtwide priorities as presented in the needs assessment section. Achievement-based evaluations of social/emotional programs and bilingual programs are not included here. (Readers interested in bilingual programs effect on academic achievement are referred to the footnote, page 9).

Within the basic skills category, the scope of comparison is limited by data availability: (1) In 1978-1979, the District administered achievement tests only in grades two, four, six, eight, and eleven. Achievement comparisons across the District are therefore limited to those grades. (2) Furthermore, comparable remedial basic skills programs only exist in grades two through six. For these reasons, the comparison is limited to an analysis of the achievement gains of low achievers in grades two, four, and six.

Three basic skills programs operated in the selected grades. These are the ESEA Title I program, ESAA Title VII Basic Skills Impact Model (BSIM), and URRD School/Community Liaison Services (S/CLS). These programs all provided supplementary instruction to selected students in several buildings. Within grades two, four, and six, this evaluation compares (a) the compensatory basic skills program students who scored in the lower three stanines on the fall 1978 achievement tests with (b) all other students who scored in the lower three stanines on the same tests. Limiting the study sample to students who scored low on the fall tests resulted in eliminating all but eight students who received tutoring services from S/CLS, and so the program could not be part of the comparison.

The groups differed by design in the buildings served and in the students served within those buildings. (1) Title I programs by law must be located in those buildings whose attendance areas have the highest concentrations of low income children. Within those buildings, the students served were documentably the "most educationally needy" in reading for the reading programs and in math for the math programs. (2) The BSIM was located in buildings involved in the District's desegregation plan, usually pairs or triads. In these schools, at least one building of each pair or triad had high concentrations of minority students and one-half to two-thirds of the students were bused to each school. Students within the buildings were served on a basis similar to that used by Title I programs for student selection. (3) Students in the unserved comparison group were the low achievers from Title I and BSIM buildings who were not in

most need of service plus those attending buildings with none of the compensatory basic skills programs. The unserved buildings were thus not involved in the desegregation plan and did not have high concentrations of low income students.

Students in the compared programs had lower initial achievement and more frequently lived with low income families and in low income neighborhoods. The gains expected for them over the year were therefore less than gains expected for other low achievers, as pointed out on page 8. In contrast, the unserved low achievers had generally higher initial achievement and fewer came from low income families and neighborhoods.

The two groups also received substantially different services. Title I and BSIM operated on the pullout model of instruction and kept detailed, on-going check lists of student progress and administered periodic diagnostic tests to determine student progress and needs. "Unserved" low achievers received their instruction in their regular building program, typically in the regular classroom as conducted by the regular teacher.

Strategy

The essential problem for this comparative evaluation is that the student groups differed by design. Therefore to best compare gains made over the 1978-1979 school year, a statistical method was chosen which could remove the effect on achievement gains of several factors which relate to achievement. An analysis of covariance was selected to adjust students' test score gains by subtracting the effects due to poverty, pretest score, living situation, and grade level (the "covariates"), and then to compare adjusted achievement gains for the groups.

Results

The results vary by grade level and also by basic skills subject. Sixth grade low achievers in both reading and math, and fourth grade low achievers in reading, who were not served in remedial basic skills programs all showed significantly higher percentile gains over the year than did low achievers in the compensatory programs. That is, despite the fact that compensatory program students received "double doses" of reading and math instruction, their achievement gains were less than those of other low achievers in the district. Furthermore, the results are essentially the same before and after adjusting gains for the covariates.

Actual percentile gains are listed for each group on Table 5. Numbers in the column labeled "district average" indicate the average percentile gain for all low achievers in the indicated grade levels. The numbers in parentheses indicate how many students were pre- and post-tested in each group. For example, 496 students in the second grade took both the fall and spring achievement tests and scored below the twenty-third percentile in Total Reading on the fall 1978 administration of the MAT, and they gained an average of 12.13 percentile points over the year. The positive and negative numbers listed under the three program groups indicate each group's deviation from this average gain. A score of zero indicates an average gain. A negative score for a group indicates the number of percentile points below the average gain. Likewise, a positive score indicates that the group average gain was that number of percentiles above average. That

TABLE 5

AVERAGE PERCENTILE GAINS AND ADJUSTED PERCENTILE DEVIATION SCORES FOR 1978-79 DISTRICT LOW ACHIEVERS BY SERVICE CATEGORY

	TOTAL READING				MATH COMPUTATION			
		Percentile Deviations				Percentile Deviations		
Grade	Low Achiever Average	Title I	BSIM	Unserved	Low Achiever Average	Title I	BSIM	Unserved
2	12.13	+0.58	-0.90	-0.42	9.22	-1.99	-0.01	+1.14
(n)	(496)	(240)	(65)	(191)	(395)	(119)	(68)	(208)
4	7.94*	-2.28	-0.32	+2.81	13.84	-1.93	-3.36	+1.60
(n)	(523)	(258)	(50)	(215)	(798)	(300)	(44)	(454)
6	3.06*	-1.62	-1.19	+1.18	9.32*	0.00	-4.09	+1.27
(n)	(482)	(96)	(127)	(259)	(759)	(87)	(159)	(513)
Total	7.76*	-0.01	-2.05	+0.75	11.15*	-0.68	-4.30	+1.29
(n)	(1501)	(594)	(242)	(665)	(1952)	(506)	(271)	(1175)

* Significant differences between groups' achievement gains.

is, 240 second grade Title I students gained .58 percentile points above average or 12.71 percentiles. Again, these scores have been adjusted on the basis of parents' income, initial achievement level, and number of parents living in the home.

Discussion

Several factors influence these results. First, even though the analysis of covariance controlled for some of the differences between groups, there is no way to control for all of the differences. In addition to different poverty levels, living situations, initial achievement, and grade level, the groups' students probably differ in other ways which could affect learning and were not controlled. Second, these supplementary programs account for half of the student's instruction in reading or mathematics so that these results reflect the effectiveness of the combination of regular program plus the supplementary instruction provided by special programs. Third, the evaluation is based upon gains on the MAT Total Reading and Mathematics Computation Subtests which may not have adequately tested the subject matter being taught in the supplementary programs.

Limitations aside, however, low achieving students in supplementary programs exhibited smaller achievement test gains than low achieving students not in supplementary programs.

RECOMMENDATIONS FOR IMPROVEMENT IN COMPENSATORY BASIC SKILLS PROGRAMS

In keeping with the "District Goals and Objectives for 1979-1980" to "establish student achievement in basic skills as the districts' primary focus", and in keeping with the surveyed principals' opinions that there is a first priority need for raising low achievement in reading and math, it is recommended that compensatory basic skills program improvement be adopted as a major district goal.

Two readily available sources can yield suggestions for improving the existing programs. One exists within the programs themselves. The other exists in extensive evaluation literature which reports results of long term studies of basic skills remediation programs. These two sources are discussed in the pages which follow. The discussion offers many suggestions for ways to improve the existing programs.

Suggestions From Local Programs

The study presented above presents averaged results for the Title I, BSIM, and regular district programs. Overall, the regular program produced the highest gains. Yet wide variations exist among individual buildings gains within each program. Reading gains in schools with Title I reading programs, for example, ranged from +8.75 to -4.47 percentiles, BSIM schools ranged from +10.44 to -4.56, and unserved schools ranged from +5.12 to -6.13. Therefore, in some locations students gained significantly more than average and in others, significantly below average regardless of program funding and intervention strategy.

To derive program improvement suggestions from successful local building-level programs, the District should identify building-level programs associated with the largest achievement gains for low achievers and compare characteristics of these programs to those associated with low achievement gains. Identified attributes of building level programs with high academic gains could indicate changes to be made for districtwide basic skills program improvement. No successful program will work successfully in all locations, but attributes of these programs, like successful content or instructional methods, should be identified and used to guide improvement efforts in unsuccessful buildings.

Suggestions From Evaluation Literature

Other suggestions for guiding general program improvement can be found in the extensive publications of local and national evaluation literature. This section presents the results of a literature search on six issues in compensatory basic skills programs.

The issues presented below have been discussed by various program personnel and have been widely studied by researchers on the effectiveness of basic skills remediation. The data all are derived from published studies either from within the Seattle School District or from national education publications. The issues include:

A. Student Graduation from Remedial Basic Skills Classes

B. Student Mobility

C. Early Intervention

D. Parent Involvement

E. The Pullout Model

F. Summer School for Low Achievers

A. Student Graduation from Remedial Basic Skills Classes

The graduation issue is one of the issues frequently raised regarding service in supplementary basic skills classes. How much service is enough? How can the existing funds be most efficiently utilized? Some educators feel that a student should be graduated as soon as certain deficits are overcome so that other low achievers can also be served. These people see the compensatory program as a short term, perhaps periodic, service always serving the most needy students. Others feel that students should be retained in the compensatory basic skills class until they perform at grade level for several months so that long term successful performance is realized.

Considerable support for retaining low achievers in remedial basic skills classes for an extended period comes from Robert J. Costello (1973) who studied various reading programs for Title I students in the Dallas School District. His programs generally proved effective in the short term, but longitudinal data showed that grade level performance was not maintained for long once students

left the program. Based on these data, his report recommends that Title I students remain in the special program until they meet the criterion of reading at or above grade level for two consecutive years. This standard of performance is considerably higher than that currently employed in Seattle, but from Costello's view, a strict standard is warranted because of the critical dependence of future learning on reading ability. His studies show that the risk for the student is too large to base advancement on one test score or on adequate performance for a short period of time.

Local data on Title I students from 1973 to 1978 similarly show that many students who were graduated from Title I after one year or less lost their achievement gains over the next year and needed to be returned to Title I during the third year. These children who were moved out and back into Title I made up 26 percent of the students who advanced after one year. The implication of the data is that they were "graduated" from Title I too soon, that they could operate at grade level only with the supplementary instruction in their areas of basic skills weakness, and that perhaps because of premature graduation, the district's investment of funds and effort into these children was ineffective in the long term. While advancement criteria in each program should be linked to districtwide program goals, based on data such as these, it is recommended that the basic skills programs develop more rigorous graduation criteria and that the possibility be explored of keeping low achievers in compensatory classes at least until they perform at grade level for several months.

B. Student Mobility

Several elementary building principals listed student mobility as a key problem in their buildings. Furthermore, mobility has been correlated with low achievement in both experimental and survey research and it is therefore a problem especially relevant to programs which aim to remediate low achievement. In one local study of mobility, Hedden and Marchisio (1975) stated that those students who transferred during the studied year tended to be low achievers from high poverty areas. In another, Wood and Glascock (1978) found that those schools with the highest mobility rates also had the highest proportions of low achievers. National studies have made a step toward establishing that mobility causes low achievement in basic skills. Justman (in Passow, 1976), found that mobile, disadvantaged groups of children "showed consistently poorer performance in the sixth grade than in the third grade" in basic skills while non-mobile groups "evidenced consistently better performance" (p. 266).

In order to reduce the untoward efforts of mobility on basic skills achievement, it is recommended that programs be developed for reducing low-achieving student mobility and for reducing the unsettling effects of mobility for students who do move.

One possibility for keeping students from changing schools would be to create options for students in compensatory programs to be bused back to their original school if their family moves during the year. For those students who do move, the surveyed principals made several suggestions for reducing the effects of changing schools. These include:

(1) Encouraging curriculum continuity between schools so that students who move from one to the other would find a minimum amount of change in curriculum and have an easier transition. This curriculum continuity

could, for instance, be based upon student learning objectives and the math and reading Scope and Sequence curricula for the compensatory programs as well as the regular programs throughout the district;

(2) Serving compensatory program students in the new school with a similar program or giving them first priority on a waiting list if there is no room for immediate service;

(3) Establishing counselling or buddy system programs in each of the buildings for helping new students adjust; and

(4) Providing counsellors for transferred students and close school liaison with transferring students' homes.

Hedden and Marchisio (1975) found clusters of district elementaries that experienced "reciprocal mobility" or a high percentage of trading students among small clusters of buildings. These tended to be the buildings that had Title I programs. If such patterns could be identified in the district as it is today, a pilot mobility program could be established in the buildings so involved with each other. The building compensatory programs provide a logical vehicle for starting such a program.

C. Early Intervention

Another suggestion in the nationwide research and evaluation literature for improving the effectiveness of compensatory basic skills classes is to focus remediation efforts on the low achievers as early as possible. The concept behind Head Start and other early childhood programs is just that: if educationally disadvantaged children receive special school readiness services, they would be able to maintain an academic pace similar to that of more advantaged children. Early intervention research abounds, reflecting this concern. A thorough survey of early intervention research conducted by David Ausubel (1964) led him to conclude that low achievement created by an educationally disadvantaged environment can be reversed with early attention, although the possibility of amelioration decreases as the child matures.

The most recent studies of long term, early intervention effects support the expectations held by formulators of Head Start and Follow Through legislation. One study on the persistence of preschool effects (ERSB, 1978) indicated that preschool programs with "cognitive curricula" had significant long term positive effects on academic achievement. The children were selected for CAMPI because, without intervention they would be likely to be low achievers in school. However, they now have no higher a proportion of low achievers than the rest of the districts' second grade population. Indeed, many of them have reading abilities above the district average.

These data are especially impressive when compared to the recent studies of Title I long term effectiveness which show that significant program results in later years are not maintained even for two years. Increased academic achievement level in reading as a result of remediation does seem to persist if students are given early instruction.

Two local studies have demonstrated positive effects over three years from preschool and kindergarten reading programs. In one, James and Stier (1975)

found that children who had been in CAMPI or DISTAR programs for preschool and/or kindergarten exhibited reading achievement scores significantly above the district mean when the children were tested in the second grade.

Similarly, a recent study of 1976-1977 CAMPI preschool children (reported in a memorandum, April 1980, Wood to CAMPI administrators) examined their academic achievement in second grade. The percentage of low achieving ex-CAMPI students in the second grade is no different from that of the rest of the district's second graders. That is, the preschool experience correlates with a substantially higher achievement level than would be expected without it.

Early intervention, then, is both a widespread concern and has been shown to be effective. Yet in Seattle, there is less financial investment by age level in pre-school through first grade basic skills programs than there is in grades two through six. Based on the reported research it is recommended that compensatory basic skills programs in the early years of each child's educational experience be given higher priority by the District.

D. Parent Involvement

Parent involvement is encouraged in several of the basic skills compensatory programs in Seattle. In some programs the input of parents is required in the program decision-making process by the funding source. In others, the input of parents is encouraged in the classrooms and at home with children. The issue in parent involvement is not whether the parents should be involved, but how and to what effect.

Literature on the subject gives some support to involving parents on two different levels, both with program staff in the decision making process and with the children at home in a tutoring function. It is indicated that involving parents in the decision-making process could possibly help increase academic performance of the children by increasing the parents' self-esteem and thus, indirectly, the child's self-esteem (EPRC, 1973). However, the type of parent involvement that research has shown to best increase student achievement is the use of parents as tutors. Results show that this can be significantly effective, especially for young children (EPRC, 1973).

Local parent involvement efforts do not generally reflect current research on the most effective way to involve parents. Parent Advisory Councils (PACs) have been developed in response to rules and regulations for Title I and URRD programs which require parents' input into program planning, usually for compliance reasons. The result is a parent program with little direct relationship to the goal of increasing student's basic skills. The Child Development Centers and Title VII BSIM parent involvement programs are exceptions. In the BSIM program, for instance, Home Study Assistants spend fifty percent of their time contacting and working with parents of identified students, teaching them how to use materials with their children which reinforce the program's teachings, and talking with them about their children's progress. Past evaluations of the program agrees with nationwide studies: children whose parents are involved made greater test gains than did the other children in the programs.

Any parent involvement component of compensatory programs must recognize the student/parent population. The type of low achievement which is addressed by

Title I, for instance, is correlatd with poverty and mobility (Wood and Glascock, 1978). The Title I students frequently live with one parent (Corwin, 1978b). For that one parent, attending meetings of any kind can present several prohibitive problems including childcare arrangements, time away from other responsibilities, transportation, and related costs. The one most consistent finding of parent involvement studies is that a significant degree of participation is difficult to obtain (EPRC, 1973). A program which could cover parents' expenses and even pay them for training sessions and tutoring could solve enough of the motivation and financial problems to be successful.

Based upon the available research then, it is recommended that further emphasis be placed on parent involvement in the parent/student relationship for increasing academic achievement of the students in the basic skills programs and that such involvement cost the parents as little as possible.

E. The Pullout Model

Most compensatory education programs in the Seattle School District operate on a "pullout" model of instruction in which a student is removed from regular classes to participate in brief periods of intensive, specialized instruction. Many arguments are presented in favor of the pullout model. Proponents maintain that teaching to a small class of students with a common performance level is easier and more effective than other instructional strategies. Students served by pullout programs are more likely to receive instruction from a subject matter specialist (USDHEW, 1976). Furthermore, grouped abilities within a class allow the teacher to focus on the specific shared needs of the group without incurring the costs of one-to-one tutoring. Pullout models thus can reduce the frustration and the resulting lower student self-concept from classwork at a too-advanced level.

On the other side of the issue, however, is a recent National Institute of Education study (USDHEW, 1976), based on a sample of one hundred school districts, which questioned the pullout philosophy on educational grounds. The study concluded that the pullout model in Title I programs frequently deprived students of regular science, social science, and other classes to which they are entitled. The study also noted that taking students out of class for remedial reading often resulted in grouping students along reading ability lines in all subjects since students' schedules must be adjusted to accommodate the pullout program. As a result, the students served were often segregated from the other students in all subjects. The same document summarized findings regarding such grouping. The study examined achievement test scores and attitudes, and it found:

(1) Ability grouping favored high-ability students but their gains are offset by unfavorable effects on the learning of students of average and below average ability, particularly the latter. (NIE, 1976, p. IV-9).

(2) Pullout models unfavorably affected the self-confidence of those placed in low ability groupings.

Another reported disadvantage of removing the student from the regular class for specialized instruction is that the student's regular teacher may lose the responsibility and concern for the student's basic skills achievement. The diffusion of this responsibility and concern often results in a situation which can perpetuate low student achievement instead of intervening to improve it.

A second recent NIE study (USDHEW, 1977a, b) showed that first graders who stayed in their regular classes for basic skills remediation made significantly larger gains in reading and in math than those who were taken out for special instruction. Third graders, however, showed mixed results. The pullout model for math instruction at the third grade level resulted in greater achievement gains than supplementary instruction in the classroom. For third grade reading instruction, achievement gains were the same for pullout and regular classroom instruction.

The issue in Seattle has to date been addressed on practical grounds. While federal regulations do not mandate the pullout model, the regulations as interpreted in the State of Washington do require that school districts conduct identifiable programs which are distinct from the regular district program in order to prevent districts from supplanting the regular program with categorical funds. Though some programs offer other models, the pullout model has been widely adopted in Seattle as the simplest approach to satisfying these requirements and providing intensive service to students.

There are several alternatives to the pullout model which meet federal regulations, however. Some include summer school, after school programs, teacher aides for compensatory program students in the regular classroom, and services for compensatory students with a reduced student/teacher ratio. Because the only available study based on objective data (test score gains and student self concepts, cited above) shows that use of the pullout model can hurt low achieving students gains and attitudes, it is recommended that the District develop and test alternatives to the pullout model which satisfy federal regulations. It is also recommended that the low achieving student's regular teacher retain clear responsibility for the student's basic skills achievement.

F. Summer School For Low Achievers

The first five issues presented here have dealt with possible ways to improve the school year compensatory basic skills program. A summer school program would both provide an additional opportunity to remediate students and would offer an alternative to the pullout model of instruction which meets federal requirements for an identifable, supplementary program. There are strong implications in research literature that such a program would help low achievers catch up to their peers in reading and mathematics basic skills.

Seattle School District Evaluation Office reports have consistently indicated a need for a basic skills summer school. For instance, Hedden et al (1975) report the following:

1. Overall, Title I reading programs produced an average of a 3.33 percentile gain over the school year followed by a 2.65 loss over the summer.

2. Overall, Title I mathematics programs produced an average of a 3.15 percentile gain during the school year followed by a 4.10 loss during the summer.

3. A summer intervention program that merely maintained school year gains over the summer could produce dramatic improvements in long term achievement. An intervention program that continued school year growth over the summer could raise the average Title I student achievement level out of the under-achiever category in two to three years.

Thomas and Pelavin (1976) indicate why this gain-loss-gain pattern of achievement would cause low achievers to fall farther and farther behind their peers. Although the studies show parallel rates of achievement for the two groups during the school year, they also present research which indicates a difference between achievement rates of low achievers and average students over the summer. The low achievers either make no gains over the summer or they lose a month's gain while other students continue to make moderate gains. This summer loss phenomenon, they hypothesize, keeps low-achieving students from catching up to their average peers or causes them to fall further behind even when their gains are average during the school year.

Passow, Goldberg, and Tannenbaum (1967) include articles in Education of the Disadvantaged which suggest a reason for the summer loss phenomenon. They state that compensatory programs need to provide intense and consistent input into the lives of disadvantaged children if they are expected to compensate for factors in the environment which depress achievement. The typical compensatory basic skills program in Seattle does provide intense instruction with one teacher for five or six children for 35 minutes each day. But this instruction, lasting about 8½ months a year, does not provide a consistent input into the lives of these students.

A basic skills summer school is one strategy which would enable the compensatory programs to provide an intense and consistent input into the lives of the children served. Research indicates it could help the enrolled low achievers catch up to their peers in the basic skills subjects.

The District has, in the past, conducted summer schools which included academic instruction. However, these schools have frequently required tuition thereby eliminating many of the most needy students. In order to provide a basic skills summer school that is open to low-achieving children regardless of ability to pay, it is recommended that the District develop a tuition-free basic skills summer school for low-achieving students to supplement the students' regular instruction.

SUMMARY

Compensatory programs are defined for this report as programs which provide supplementary services to students enrolled in the regular district program who have identified needs which form a barrier to their academic achievement. The report, AN ANALYSIS OF THE SEATTLE COMPENSATORY EDUCATION PROGRAM 1978-1979: NEEDS, EFFECTIVENESS, AND PROGRAM IMPROVEMENT, presents a description and evaluation of the system of compensatory programs which has developed in the Seattle Public Schools. In the following report summary, page numbers in parentheses indicate the location of information in the report.

The report first describes student needs for compensatory programs and then the district's programs which serve those needs. Briefly, a principals' survey (page 3) and objective, student needs data (page 6) agree that the greatest needs for compensatory programs in Seattle are for remediating weaknesses in reading and math skills and, next, for serving students having severe behavior problems. The District has mounted a network of fifteen compensatory programs designed to meet these needs plus the needs of students with limited English fluency (page 11). These programs are supported by a combined budget of nearly $9 million (page 12) provided primarily by federal legislation and supporting primarily the basic skills compensatory programs. The programs use one or more of four basic intervention strategies (page 16) for increasing the academic achievement of served students. These include a supplementary classroom strategy, tutoring, counselling, and home/school liaison services.

An evaluation of the fit between needs and services (page 21) indicates that despite the multi-faceted program network, service shortages remain in three high priority areas: (1) reading and math remediation in junior high/middle schools, (2) social/emotional services in junior high/middle schools, and (3) social/emotional services in elementary schools. In addition, (4) several elementary principals perceived high priority need for special services for children who changed schools frequently.

Although recent districtwide efforts have moved toward administering similar programs together regardless of funding source (page 18), vestiges still remain of the system based on grant requirements and funding source. In order to better serve students with needs for supplemental services, it is recommended that the District develop policies and goals for program coordination and placement and furthermore, that the assessment and screening processes for all special programs be coordinated (page 24).

Evaluations of each of the categorical, compensatory programs are conducted yearly to meet funding source requirements. Evaluations, however, have rarely been conducted to compare programs which have similar goals for similar populations even though such comparisons would best serve the District's basic goal of high quality education for all students. Toward this goal, the report presents such a comparison, centering on compensatory remedial basic skills programs for elementary-aged school children (pages 25-28). Although the compensatory programs at that level provide intense remediation to low achievers in reading and math, those served students tended to make smaller achievement test gains than the district's low achievers who got no service supplementary to that provided in the regular classroom. With this result in focus, it is recommended that the District adopt compensatory basic skills program improvement as a major goal (page 28).

Two sources are recommended for deriving program improvement suggestions. First, it is recommended that the District identify individual building-level programs associated with the largest achievement gains for low achievers and compare characteristics of these programs to those associated with low achievement gains. The second suggested source of program improvement information is the extensive evaluation literature published locally and nationally on the subject of basic skills remediation (page 29).

The report concludes by presenting a review of literature on basic skills remediation and offering the following literature-based recommendations for program improvement:

(1) Longitudinal studies of compensatory basic skills programs indicate that students who graduate quickly from basic skills compensatory programs frequently lose the gains they have made. It is therefore recommended that basic skills programs develop more rigorous graduation criteria and that the possibility be explored of keeping low achievers in compensatory classes at least until they perform at grade level for several months. (page 30).

(2) Mobility disrupts the remediation efforts of compensatory programs and is thought by many to cause low achievement. In order to reduce the untoward effects of mobility on basic skills achievement, it is recommended that programs be developed for reducing low-achieving student mobility and for reducing the unsettling effects of mobility for students who do move (page 30).

(3) Many studies indicate that intervention in the early years of a child's educational development can yield greater long term effects than intervention in later years. Therefore, it is recommended that compensatory basic skills programs in the early years of each child's educational experience be given higher priority by the District (page 32).

(4) Parent involvement research indicates that parents can be effectively trained to increase their children's academic achievement, but that involvement is frequently too expensive for low income parents. It is therefore recommended that further emphasis be placed on parent involvement in the parent/student relationship for increasing academic achievement of the students in the basic skills programs and that such involvement cost the parents as little as possible (page 33).

(5) Growing concern over the widespread use of the pullout model has lead government researchers to study the effects of pullout. It appears that the use of the model has negative rather than positive effects on the academic gains of some low achievers, especially in reading. Part of the problem is thought to be that the compensatory program students regular teacher frequently relinguishes responsibilities for the child's basic skills achievement. It is therefore recommended that the District develop and test alternatives to the pullout model which satisfy federal regulations. It is also recommended that the low achieving student's regular teacher retain clear responsibility for the student's basic skills achievement (page 34).

(6) Finally, studies of reading achievement have shown that low achievers typically lose some reading achievement over the summer while average achievers

maintain or gain achievement. In order to try to reduce the "summer loss" phenomenon, it is recommended that the District develop a tuition-free basic skills summer school for low-achieving students to supplement the students' regular instruction (page 35).

APPENDIX A

School Name _____

NEEDS ASSESSMENT SURVEY

Please answer the data requests following each student characteristic. List all services and programs offered in your school that pertain to a listed characteristic. This should include categorical programs as well as school designed services like those offered by the librarian etc. Please write your answers on the back if you need more space.

1. Student characteristic: Reading below grade level.

   a. Estimate the number of students reading below grade level in your school._____
   b. Estimate the number of students reading below grade level in your school who are served by programs designed for this population._____
   c. Please list the title and a brief description of any program used in your answer to b.

   _____

   c. Please describe the type of program that would best serve students reading below grade level, if not described in c.

   _____

2. Student characteristic: Mathematics skills below grade level.

   a. Estimate the number of students having mathematics skills below grade level in your school. _____
   b. Estimate the number of students having mathematics skills below grade level in your school who are served by programs designed for this population._____
   c. Please list the title and a brief description of any program used in your answer to b.

   _____

   d. Please describe the type of program that would best serve students having mathematics skills below grade level, if not described in c.

   _____

3. Student characteristic: Exceptional academic performance

   a. Estimate the number of students who demonstrate exceptional academic performance in your school. _____
   b. Estimate the number of students demonstrating exceptional academic performance in your school who are served by programs designed for this

population. _____

c. Please list the title and a brief description of any program used in your answer to b.

_____

d. Please describe the type of program that would best serve students who demonstrate exceptional academic ability, if not described in c.

_____

4. Student characteristic: Severe behavior problems.

a. Estimate the number of students in your school who have severe behavior problems. _____

b. Estimate the number of students with severe behavior problems in your school who are served by programs designed for this population. _____

c. Please list the title and a brief description of any program used in your answer to b.

_____

d. Please describe the type of program that would best serve students having severe behavior problems, if not described in c.

_____

5. Student characteristic: Primary language not English.

a. Estimate the number of students in your school whose primary language is not English. _____

b. Estimate the number of students in your school whose primary language is not English and who are being served by programs designed for this population. _____

c. Please list the title and a brief description of any program used in your answer to b.

_____

d. Please describe the type of program that would best serve students whose primary language is not English, if not described in c.

_____

6. Student characteristic: Change schools during a school year.

a. Estimate the number of students in your school who change schools during the school year. _____

b. Estimate the number of students in your school who change schools during the school year and are being served by programs designed for this population. _____

c. Please list the title and a brief description of any program used in your answer to b.

_____

d. Please describe the type of program that would best serve students who change schools during a school year, if not described in c.

_____

7. Please describe any other student characteristics (not included in 1-6) that require instructional services outside the regular classroom and personnel.

_____

8. PLease assign a rank to the following student characteristics. This rank should indicate the extent to which students having this characteristic in your school require services. 1=great need for service, 7=least need for service

_____ Students reading below grade level

_____ Students having mathematics skills below grade level

_____ Students demonstrating exceptional academic performance

_____ Students demonstrating severe behavior problems

_____ Students whose primary language is not English

_____ Students with frequent school transfer

_____ Other characteristics (please specify)

APPENDIX B

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